

IN THE CLAIMS

Please amend the claims as follows:

1. (original) A method of creating VOBUs in HD-DVD systems, comprising following steps:

a. gain HD-enh data streams and SD video data streams by dividing original HD video data streams;

b. all kinds of data streams including HD-enh video data streams, SD video data streams, and audio data streams are packed to HD-enh video data packet (V_PCK_HD), video data packet (V_PCK), and audio data packet (A_PCK) respectively to compose a series of VOBUs.

2. (original) The method of claim 1, further comprising a step of writing the data in the VOBUs into an optical disc in turn to create a HD-DVD disc.

3. (original) The method of claim 1, further comprising a step of creating mapping file by a series of VOBUs to make HD_DVD disc.

4. (currently amended) The method of claim 2 ~~or claim 3~~, wherein said V_PCK_HD data packet and related V_PCK data packet are

sequenced adjacently in the same VOB.

5. (original) The method of claim 1, wherein said V_PCK_HD data packet and said V_PCK data packet can share the same A_PCK data packet in the VOB.

6. (original) The method of claim 1, wherein the HD-enh video data streams are packed to V_PCK_HD packet according to the defined structure of the V_PCK_HD data packet in said step b.

7. (original) The method of claim 6, wherein the structure of the V_PCK_HD data packet is defined with a reserved Stream_ID, namely the identification mark of the stream, in MPEG standards.

8. (original) The method of claim 6, wherein the HD-enh video data is put into the private stream, and the structure of the V_PCK_HD data packet is defined with a reserved or provider defined Sub_Stream_ID, namely the identification mark of the sub-stream.

9. (original) A kind of HD-DVD disc, wherein said disc contains V_PCK_HD data packet and V_PCK data packet.

10. (original) The HD-DVD disc of claim 9, wherein said V_PCK_HD data packet and related V_PCK data packet are sequenced adjacently

in the HD-DVD disc.

11. (original) Means for creating VOBUs in HD-DVD systems, comprising:

a segregating unit, used to divide original HD video data streams into HD-enh data streams and SD video data streams;

a multiplexer, used to pack all kinds of input data streams including HD-enh video data streams, SD video data streams, audio data streams into HD-enh video data packet (V_PCK_HD), video data packet (V_PCK), audio data packet (A_PCK) respectively composing a series of VOBUs; and the said segregating unit is joined with the multiplexer.

12. (original) The means of claim 11, wherein said segregating unit comprises:

Means for resolution downgrade, used to downgrade the resolution of the input original HD video data streams;

SD encoder, used to encode the input data streams which have been resolution-downgraded to gain SD video data streams, and transmit the SD video data streams to the multiplexer;

Decoder, used to decode the input SD video data streams;

Means for resolution upgrade, used to upgrade the resolution of the input decoded SD video data streams;

A differential means, used to perform differential process on the input data streams which have been resolution-upgraded and the input original HD video data streams;

HD-enh encoder, used to encode the data streams which have been differentiated to gain HD-enh video data streams, and transmit the HD-enh video data streams to the multiplexer.

13. (currently amended) The means of claim ~~11 or claim 12~~, wherein said multiplexer is the multiplexer which accords with DVD standards.

14. (original) Means for playing HD-DVD disc, comprising:

optical wave picker, used to deal with the input VOB data streams in the HD-DVD disc to gain V_PCK_HD data packet and V_PCK data packet;

HD-DVD decoder, used to respectively decode the V_PCK_HD data packet and V_PCK data packet to gain HD-enh video data streams and

SD video data streams;

means for resolution upgrade, used to upgrade the resolution of the input SD video data streams;

means for overlapping, used to overlap the input SD video data streams which have been resolution upgraded with the input HD-enh video data streams to gain the output of the high definition TV.

15. (original) The means of claim 14, wherein said HD-DVD decoder contains a V_PCK_HD buffer, a V_PCK buffer, a HD-enh decoder and a SD decoder, said V_PCK_HD buffer and the HD-enh decoder process the V_PCK_HD packet in turn to gain HD-enh video data streams, said V_PCK buffer and SD decoder deal with the V_PCK packet in turn to gain SD video data streams.